

**Alaska Dept. of Natural
Resources**

**Division of
Forestry - Delta
Area Five Year
Schedule of
Timber Sales**

**Fiscal Years 2014-18
Adopted September 10,
2013**

Statement of Adoption Delta Resource Area Fiscal Year 2014-18 Schedule of Timber Sales

Alaska Statute 38.05.113 specifies that the state shall annually prepare a five-year schedule of timber sales planned on all lands managed by the department. This statement summarizes the procedures taken and adopts the schedule for the Delta Area of the Alaska Division of Forestry.

The Delta Area of the Division of Forestry sent its Agency Review Draft of the Five-Year Schedule of Timber Sales (FYSTS) to nine state agencies on April 19, 2013. Three agency comments were received from Division of Mining, Lands and Water (2); Alaska Department of Fish and Game (1) before the comment period closing at 4:00p.m. May 22, 2013. Alaska State Historic Preservation Office provided two comments, one the 30th and another the 31st of May. (*See file.*) The comments from the agencies were considered, and appropriate changes were made which resulted in the preparation of a Public Review Draft.

The public comment period began on July 25, 2013 and ended August 23, 2013. Display ads were published on the Department of Natural Resources Public website on July 25, 2000. In addition, thirty-five notices of the FYSTS revision were mailed to local governments, Federal agencies, community service organizations, advisory groups, and interested citizens. Pertinent comment was received until August 23, 2013. Public comment was received from ten individuals. (*See file.*)

On September 10, 2013 a reply was sent to all individuals providing public comment.

“Every two years the department must prepare a five-year schedule of timber sales planned on all land managed by the department. The timber sale schedule must provide a time line that identifies timber sales, their volumes, and their locations and must contain sufficient information to provide the public and the forest products industry with a basis to comment on the proposed offerings. A proposed sale may not be held unless it has been included in one of the two five-year schedules immediately preceding the sale unless the sale acreage is less than 160 acres or is an emergency sale. (AS §38.05.113 Five Year Sale Schedules) As such, the FYSTS is a scoping document and is not in and of itself a action or decision document.

If the department decides to proceed with any timber sale listed in the FYSTS that does not already have a completed Forest Land Use Plan (FLUP), opportunity for the Public to comment will occur during the FLUP process. During the FLUP comment process State and Federal land management agencies will be consulted to provide comments regarding specific components or impacts of the proposed project. Public comment will also be taken during the FLUP process. If a significant adverse impact is found during the FLUP process that cannot be mitigated the project will not proceed.”

All of the comments provided for the FY2014-18 FYSTS will be considered during the FLUP process for projects or resource management activities that may arise in the locales specified by commenters as well as within the Delta Resource Area. Comments provided shall be kept on file and will be reviewed during the development of a Best Interest Finding for FLUPs detailed in the FYSTS.

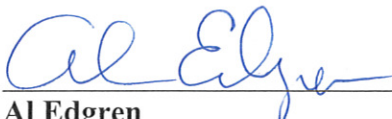
The FYSTS notice was mailed to the Tanana Valley State Forest Citizens' Advisory Committee Chairman and individual members on July 25, 2013. No comments were received from the Committee or its' members individually.

STATEMENT OF ADOPTION

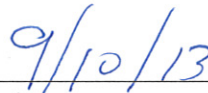
This Five Year Schedule of Timber Sales is the result of both the agency and public review process and describes the Divisions intent to offer the sales shown in the Five Year Schedule of Timber Sales. Prior to any sale described in the Five Year Schedule of Timber Sales actually being offered for sale, a Forest Land Use Plan will be developed specifically for a sale area described in the Five Year Schedule of Timber Sales. The opportunity for Agency and Public comments will be provided during the Best Interest Finding process for a Forest Land Use Plan.

Actual timber sale offerings listed in the Five Year Schedule of Timber Sales are contingent upon the specific Forest Land Use Plan being adopted per State of Alaska Forest Management Statues and Regulations.

I hereby adopt the Delta Area Five Year Schedule of Timber Sales for Fiscal Years 2014 through 2018 in accordance with the provision of AS 35.05.113.



Al Edgren
Delta Area Forester



Date

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INTRODUCTION

This Five-Year Schedule of Timber Sales (FYSTS) provides information to the public concerning development and use of the state's forest resources for the period July 2014 – June 2018. The FYSTS meets the Forest Resources and Practices Act requirements and acts as a basis for budgeting.

A FYSTS provides a basis for Department of Natural Resources (DNR) to decide where to pursue timber sale planning. It provides the public, timber industry, and local governments with an overview of proposed timber activities on state lands throughout the Delta Area for the next five years. The schedule solicits input on whether or not to proceed with sale planning, and on concerns to be addressed in sale design. Listing a proposed sale does not mean a decision has been made to go forward with the sale.

It is the policy of the Alaska Department of Natural Resources (DNR) that: 1) All sales, including salvage sales and sales less than 160 acres, will be included in the two Five-Year Schedules preceding the sale whenever possible. 2) All sales, including salvage sales and sales less than 160 acres, will appear on at least the Five-Year Schedule preceding the sale unless waiting for the Schedule will: a) cause substantial losses of economic value on salvage sales under AS 38.05.117, or, b) for sales less than 160 acres, preclude a local economic enterprise or forest management project that is in the State's best interest.

After adopting the Schedule, the Division of Forestry (DOF) will do more detailed fieldwork to assess and design proposed sales. Before any commercial timber sale of ten acres or larger is offered, DOF must make a finding that the sale is in the State's best interest (Best Interest Finding or BIF) and prepare a detailed Forest Land Use Plan (FLUP). The BIF is the action document that decides whether or not the Division of Forestry (DOF) will offer a timber sale and is subject to agency and public review. The FLUP describes specific location, estimated timber volume, harvest methods, reforestation plan, access, and multiple use considerations for each sale.

Based on fieldwork, agency comments and public input, DOF may make changes to individual sales previously listed in the schedule. Any changes from the Schedule's description will be incorporated into the FLUP. DOF reviews each FLUP with the public and other agencies prior to adopting it. If a sale has been through the Schedule, BIF and FLUP processes, and was offered as scheduled but not purchased, or was sold as scheduled and returned to the State uncompleted, it can be re-offered within two years of the scheduled sale year without being included in the schedule again.

DELTA AREA MARKET DEMAND ANALYSIS

The demand for forest resources in the Delta resource area has significantly increased in the last two years. Fuelwood, both residential heating cordwood and chipped biomass, has eclipsed the sawlog market demand in the Delta Junction area. If current trends continue and proposed commercial biomass facilities become a reality, the production of forest biomass for fuel will significantly change the forest industry in interior Alaska.

Currently, the forest products industry in the Delta area is undergoing some fundamental market adjustments. Lumber manufacturing has remained static or weakened slightly. Fuelwood demand/production has increased substantially in the last two years. Considering the current market, significant industrial queries and environmental events (wind and fire) a change in sale planning and scheduling by the Division of Forestry is needed.

New industrial scale biomass project proposals, such as the Ft Greely Combined Heat and Power (CHP), Horizon Bioenergy torrefication project, and Superior Pellets production expansion have created additional planning opportunities and challenges. These industrial requests for timber resources as well as the salvage timber volume available in the Delta area have necessitated an increase in proposed biomass sales for the 2014-18 FYSTS. Additionally, demand for residential cordwood is also predicted to increase as heating oil prices continue to rise.

Due to the severe wind event, September 16-17th, 2012, significant and unanticipated salvage timber volume exists in the Delta resource area. A high percentage of the blow down timber is comprised of aspen, birch, and black spruce volume. Utilization of these species is dependent upon development of industrial biomass fuelwood facilities such as industrial fuelwood and pellet manufacturing. Stands of large white spruce were severely impacted as well; these volumes could be utilized for lumber or fuelwood.

DOF anticipates that the sawtimber industry, at the current capacity, will only be able to utilize a minor percentage of the available white spruce sawtimber before degradation occurs. The time horizon to utilize the blow down timber for sawtimber is expected to be two years; thereafter it would be considered only viable for fuelwood uses. DOF anticipates that if proposed industrial biomass facilities materialize, these sawtimber volumes will be converted to fuelwood chips due to the lack of sawtimber demand. DOF will prioritize harvest of salvage timber, both wind throw and fire salvage, in order to maximize utilization of this timber resource, to the maximum extent possible, before degradation occurs.

Use of the blow down timber for residential fuelwood is expected to be limited due to accessibility and the availability of dry firewood from burnt acreages. Currently, commercial harvests of residential fuelwood are being supplied from burn areas accessed via the Pogo Road. Residential fuelwood will be made available in the salvage areas and priority will be given to meeting the local residential fuelwood demand as areas are accessed for industrial biomass needs.

WIND STORM SALVAGE AREAS

The DOF Delta Area Office is proposing to offer for sale approximately 28,843 acres of blown down white spruce, birch and aspen sawtimber and fuelwood from state lands within the September 16-17, 2012 wind event impact area.

This FY 2014-2018 FYSTS applies to wind thrown timber stand acreages in the Johnson, Little Gerstle, Gerstle, and Delta River areas. Additionally, wind throw areas have been identified and included in the Quartz Lake area, Delta River, Delta Creek and Shaw Creek drainages.

The proposed sale areas are dispersed over the Tanana River valley within the State of Alaska Delta Resource Area. Due to the large scale of the blow down impact area, prioritization based on impacts to community safety, infrastructure, accessibility, and forest health will be used to determine harvest area priority before degradation of merchantability occurs of the forest resource. Existing roads will be used to the extent possible. New roads will need to be constructed to access the timber and are shown with the proposed salvage areas on the attached maps.

ALLOWABLE HARVEST

In order to achieve consistent and coordinated management of timber harvest on a landscape level within each management area, the sustained yield on nearby state land that is classified for forestry use is consolidated with that of the Tanana Valley State Forest (TVSF). Sustained yield has been calculated to achieve a high level of periodic output and to maintain long-term productivity of the land. Since sustained yield is based on variable factors such as forest age, site productivity, reforestation, fire occurrence, and harvest levels, the sustained yield will be recalculated on an ongoing basis as new data are acquired.

The annual allowable cut modifies the sustained yield estimate to reflect the guidelines and objectives in the Tanana Valley State Forest Management Plan. First, not all of the State Forest is available for harvest. For example, the six research natural areas, the Chatanika River corridor, and the Bonanza Creek Experimental Forest are not included in the timber base. Second, other reductions may be made from time to time as it is determined that an area should not or cannot be harvested. Approximately 655,000 acres of forested State lands in the Delta Area are excluded from the evaluation because of their classification or poor quality.

The annual allowable cut for the TVSF is incorporated in the DNR Division of Forestry's Tanana Valley Allowable Cut Determination. This report is written by DOF staff and includes the allowable cut for the TVSF and state lands in the Tanana Basin Area Plan available for timber management. Land classifications, which designated forestry or timber management as a primary or secondary use, were included in the evaluation.

The report, "Tanana Valley Allowable Cut Determination", January 30, 2001, indicates about 480,667 acres are capable of producing a commercial quality forest on lands with a primary or secondary forestry classification in the Delta Area. The rotation lengths vary for each species and the site quality. Generally, rotation lengths averaged at 70 years for deciduous trees and 110 years for white spruce. An additional 10 years was added to provide a spruce reforestation period, raising the rotation to 120 years for white spruce.

The report calculated the sustained yield over a 10-year period. Based on the report, the Delta Area can be expected to support a sustained yield of 4,873,600 cubic feet of white spruce and 5,412,700 cubic feet of hardwoods on roughly 5,092 acres per year. The report reduced the biological sustained yield to accommodate various harvest constraints in the TVSF plan. This report establishes the Delta Management Area allowable cut. A revision of the “Tanana Valley Allowable Cut Determination” report is currently underway. The revision will incorporate the impacts of pest and environmental damages to the forested areas that have occurred since 2001. With the revision, additional unaccounted forest volumes may be acquired due to more intensive sampling techniques and updated geospatial data.

Some of the areas that were originally excluded due to classification or poor quality have been or are being reevaluated due to significant biomass harvest interest and/or resource management implications due to the September 2012 wind event. Fire hazard and insect outbreak potential in the wind throw areas are the primary management concerns being evaluated. Salvage harvests in these areas could be used to minimize these potential hazards.

When considering the proposed harvest amounts it is important to understand how it relates to the entire land base of the Delta Management Area. The land base in the Delta Management Area is categorized by ownership as follows:

ACRES	
500,580	Tanana Valley State Forest Lands
333,237	Commercial Forest Classified State Lands
1,679,116	Other State Lands
436,597	Military Lands
387,679	BLM Lands
291,343	Other Federal Lands
235,886	Native Corporation Lands
151,096	All Private Lands
4,015,534	TOTAL LAND BASE

The majority of all commercial forest land in Delta is comprised of deciduous species. These birch, aspen, and poplar stands are naturally converting to white spruce. If this trend continues, the Delta Area is expected to have more white spruce available for harvest in future years than exists presently because of natural stand conversions.

HARVEST PLAN

Environmental impacts from wildland fires and wind events have significantly impacted the Delta Resource Area in the last two years. Several large fires have occurred in the Delta Area since the “Tanana Valley Allowable Cut Determination” report, burning an estimated 186,000 acres of commercial forest. The poorer quality commercial stands comprise the preponderance of burned acreage. Valuable components of the sawtimber

resource volumes, dominant and co-dominant stand classes, were severely impacted the in the Delta Resource Area during the September 2012 wind event.

DOF is anticipating increasing harvests in the Delta area due to the need to respond to the resource impacts of the September wind event as well as proposed biomass demands on the resource base. Management strategies will prioritize harvests within salvage areas, wind throw and fire, in order to capitalize on the damaged resource volume before it is lost to degradation.

Spruce stands in the Delta Area are often uneven-aged because of the slow succession from deciduous birch, aspen and poplar and eventually to white spruce. White spruce sawtimber average between 90-220 years of age in most Delta area stands. Except for salvage sales, harvests are generally selective or partial cuts, usually leaving 20 or more trees/acre after sale completion. Leave tree specie, density and size are based on specific timber and land management objectives.

All harvests, including salvage harvests, will be subject to the State of Alaska Forest Practices Act requirements as well as Best Management Practices. The Tanana Valley State Forest Management Plan and the Tanana Basin Area Plan will guide management decisions regarding salvage harvests as well.

Current markets for timber resources have established the Sawtimber Schedule (Appendix A). This schedule lists 6-10 commercial sawtimber sales that could be offered annually in years 1-5. The Sawtimber Schedule is relatively unchanged from the previous 2012-2016 FYSTS. This five-year harvest plan proposes an average annual harvest of 3,193,200 cubic feet of spruce and 374,000 cubic feet of hardwoods sawtimber. This harvest level is 41.5% of the total estimated sustained yield for all species. Due to available salvage sawtimber, standing “green” timber sales listed in the FY 2014-2018 FYSTS may be held in reserve until sawlog demand necessitates sale of this volume.

Proposed or pending market queries have established the Biomass Schedule (Appendix B). This schedule proposes a total five-year harvest of 37,870,050 cubic feet of spruce and hardwoods volume. Over 90% of this volume is derived from salvage harvests and/or poor quality sawtimber and poletimber, including black spruce. Additionally, emphasis will be placed on harvesting underutilized hardwood stands. This five year harvest level is 73.6% of the total estimated sustained yield for all species.

(A DOF Delta Area report, State Forest Biomass Inventory Availability, August 14, 2012 (Reggear, Hanson), evaluated the biomass availability for a proposed 6.5 MW CHP facility located on Ft Greely. This inventory analysis examined the potential supply of biomass fuelwood available from state lands within a two hour transportation radius of Delta Junction, Alaska. This report can be found in Appendix F.)

Public firewood harvests are expected to increase as home heating costs escalate. The Delta DOF has implemented small, 2.5-10 cord, “personal lot” timber sales of fuelwood derived from right-of-way timber cut during road construction projects as well as small

sub - 50 cord timber sales. In addition, all firewood permits are sold in person, providing opportunity for education and guidance to the permit purchasers. These strategies have minimized unregulated firewood harvest, road degradation and have protected sensitive environmental areas.

The Fuelwood Schedule (Appendix C) proposes small fuelwood sales within the Gilles Creek and Camp Creek burns for “dry” fuelwood. Successive fiscal year harvests of “dry” fuelwood are expected to decrease at approximately 15% annually in the fire salvage areas due to degradation over time. Additional “green” cordwood sale areas are anticipated in the Quartz Lake, Delta River, Tenderfoot and Gerstle river areas. Small fuelwood sales will be considered as a high priority activity by the Delta DOF in order to maintain a steady supply of residential firewood to the local area. Small commercial fuelwood harvest is not expected to exceed 4% of the five year total estimated sustained yield for the Delta Area.

Actual harvest schedules will be determined by industry demand and biological sustainability. The combined Sawtimber, Biomass and Fuelwood sale scheduling volumes could exceed the Annual Allowable Cut for the Delta Area for this FYSTS by approximately 17% annually if all sales are sold as scheduled. This accelerated harvest is in response to the volume of salvage timber available in the Delta Resource Area. Delta Area Forestry does not anticipate all of the timber sales selling as per the Schedule due to the current resource demand, primarily due to the current low demand for spruce sawtimber. But, a confluence of events, September 2012 wind event combined with Industrial requests for biomass fuelwood has created a natural resource supply/ demand scenario that is unique and evolving.

AGRICULTURE LANDS

Merchantable timber on vacant agriculture tracts may be sold through a negotiated sale process in Year One of the plan. No sales are currently planned on agriculture tracts but this could change with ownership status or windthrow management needs. Timber sale and harvest operations are contingent upon approval by the Division of Agriculture. The farm conservation plan requirements will need to be met. Timber volumes to be sold from agriculture tracts are not part of the timber base for State lands in the Tanana Basin Area Plan (TBAP) or the Tanana Valley State Forest (TVSF).

The Division of Forestry could facilitate and manage timber harvests on these public lands in order to expand harvest opportunities for the industry. Additionally, the Division could collaborate with private agricultural tract owners through stewardship projects and by providing technical assistance via Cooperative Forestry. Timber management activities on these agricultural tracts may be subject to the State of Alaska Forest Practices Act requirements as well as Best Management Practices.

Commercial agricultural lands could potentially provide a significant volume of biomass fuel through agroforestry. This potential volume could decrease the direct consumption of State forest biomass required by a large biomass fuelwood facility. Actual market

impacts would be determined over a longer time horizon than is considered in this FYSTS.

TRANSPORTATION

The 2014-2018 Transportation Schedule (Appendix D) details the proposed road projects in the Delta area. Timber sale access development will continue to pioneer roads into the surrounding forests of the Delta Area. DOF will address each timber sale access in the respective Forest Land Use Plan submitted for agency and public review. Road construction and maintenance is usually completed by the purchasers of timber sale contracts. Permits for road easements will be requested from the Division of Mining Land and Water (DMLW) prior to construction beginning.

The schedule anticipates new road construction to access sawtimber sales at Rosa Creek, Quartz Lake area, Indian Creek, Rapid Creek, Gerstle River and Black Lake area, as well as the west side of the Delta River and along the Tanana River.

In conjunction with salvage harvesting, access development may significantly increase in the Delta area. This increase in road construction is predicated on establishment of an industrial biomass facility in the Delta area capable of utilizing the wind throw salvage volume. The Delta Area is anticipating construction of 20-25 miles of all-season and winter roads annually during the 2014-18 schedule, dependent on actual salvage sales sold. New areas of construction are anticipated near the Craig Lake area, Little Gerstle River, Gerstle River, Delta Bison Range, Tenderfoot hill, Bert Mtn., west of the Delta River, Delta Creek area, Glacier and Caribou Creek drainages.

Some road construction projects may be funded by State of Alaska Capital Improvement Project (CIP) funds. At this time, evaluation is underway to determine possible CIP road project areas. All CIP road construction is dependent on funding authorization by the State Legislature.

The Transportation Schedule is dependent on harvest operations occurring as projected and /or legislative appropriations. The type of access constructed, all-season or winter, is dependent on available funding, market requirements and management plan stipulations. All forest road construction is subject to Alaska Forest Management Statutes & Regulations, Alaska Forest Resources and Practices Act, Best Management Practices and subject to provisions in area management plans or special use restrictions.

REFORESTATION

The majority of the harvested areas are reforested naturally. Reforestation is completed through sale design which promotes natural seeding through seed trees, protection of existing saplings and pole timber during harvest operations, sale scarification, roller chopping where appropriate, and direct spot seeding. Spruce seedlings are planted to augment the natural regeneration on specific sites when necessary. The Reforestation

Schedule (Appendix E) details the proposed reforestation projects for FY 2014-2018 in the Delta area.

Areas needing additional stocking are planted during the 6th year after harvesting has been completed. Due to the variability of the reforestation needs, the reforestation schedule is projected for only the first two years. Harvest demands for biomass will also significantly change the reforestation needs in the Delta Area. DOF is evaluating reforestation strategies for Aspen, Birch and White Spruce with the University of Alaska Fairbanks, as well as reviewing research from outside agencies.

Scarification is utilized where deemed necessary to ensure reforestation. The increase in scarification acreage may be a result of the increase of harvest acreage due to timber salvage operations. Actual scarification acreages will vary depending upon site suitability and management constraints.

DOF has also been studying the effectiveness of regeneration in aspen stands where roller choppers have been used. Roller chopper use is a method of site preparation whereby a large diameter steel drum with shear plates affixed around the circumference is utilized to chop up debris to minimize fire hazard and cut aspen roots in the soil. By cutting aspen roots, regeneration is accomplished via coppice sprouting thereby reducing the need for artificial regeneration.

Prescribed fire may be utilized within the harvest units to facilitate Birch seedling establishment or where potential archeological concerns rule out the use of mechanical scarification for seed bed establishment.

Sale areas, almost without exception, reforest to a mixed stand of white spruce, birch, aspen and poplar. Overstocking is as much of a concern as under-stocking. Reforestation progress is monitored year by year to ensure adequate stocking. All harvest areas rely on natural seeding to some degree. Final determination of site and sale specific regeneration requirements will be addressed in the FLUP specific to the sale area. All sale areas are examined frequently after harvest to evaluate reforestation success.

CONCLUSION

This FYSTS is a scoping document that provides agencies and the public with information regarding resource management activities within the Delta resource area. The actual implementation of resource management activities is dependent upon market demands, project funding and completion of specific Forest Land Use Plans (FLUP) for the management activity as required. Due diligence pertaining to specific management concerns, Delta Junction Bison Range, Quartz Lake view shed, Craig Lake Alaska Highway segment, et al., will be undertaken when completing the Best Interest Findings and FLUP decision documents on all resource management projects. All resource management projects are subject to Alaska Forest Management Statues & Regulations, Alaska Forest Resources and Practices Act, Best Management Practices and subject to provisions in area management plans or special use restrictions.

COMMENTS

Agency and Public comments were solicited during the summer of 2013. All of the comments are incorporated into the Delta Area FY 2014-18 FYSTS file at the Delta Area Office. These comments will be kept on file so that they may be considered during the Forest Land Use Planning process that will be undertaken for each specific timber sale proposed in the FYSTS.